



# **System Development Life Cycle (SDLC)**

## **Deployment Plan**

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## **1. INTRODUCTION**

The purpose of the System Development Life Cycle (SDLC) Deployment Plan is to enable the institutionalization of the SDLC Process. The Deployment Plan assists in transitioning the SDLC Process from its current developed stage to execution and continued maintenance. While implementing this Deployment Plan a wide variety of specifically customized activities will occur in a phased approach.

## **2. APPROACH**

The first phase is focused on socializing and marketing the SDLC Process to create awareness. With increased awareness, the SDLC Process will begin to be utilized and get the attention of the audience it is intended to serve. The goal of the second phase is to begin the process of institutionalization of the guide across projects as well as train users. The final phase is the support phase, which will establish the mechanisms that will ensure the evolution and continued incorporation of best practices within the guide. Appointing an organization (similar in nature to a Software Engineering Process Group, or SEPG) is one of the tasks that will ensure continuous process improvement as a result of implementing the guide. The goal is that at the conclusion of the deployment, the SDLC Process will become the standard reference resource for all software development solutions.

## **3. OBJECTIVE**

The objective of the Deployment Plan is to identify the activities required to initiate acceptance of the SDLC Process. The intended audience for the guide includes Integrated Product Teams (IPT), Project Managers and other members of the SFA community, including SFA's Modernization Partner, that are involved in various software development efforts. To accomplish this objective, it is suggested that the responsible deployment team focus on methods that will spark interest within the SFA community and assist with the implementation of the processes.

The Deployment Plan identifies activities and resources to facilitate the SDLC Process Guide as being the reference model for day-to-day tasks of IPTs and associated staff. Like any methodology, the SDLC Process attempts to insert a level of rigor and standardization into the way project activities are completed. The Deployment Plan is intended to help the IPTs recognize the overall life cycle, processes as well as ways to complete the processes. Initial aspects of the Deployment Plan focused on increasing awareness are expected to illustrate the value of the processes (and sample templates, where available) and foster their adoption as a successful way to achieve outcomes and desired results. The tasks outlined in the three recommended stages in the Deployment Plan are designed to effectively communicate the need for the SDLC Process as a comprehensive reference for IPTs to address business issues and opportunities for the SFA



organization. In summary, achieving these objectives for the Deployment Plan are based on the following assumptions:

- Proactively marketing the SDLC Process will aid adoption of standard processes; and
- Providing multiple sources and media for communicating the SDLC Process will encourage continued process improvement. Multiple sources may include IPTs, Project Managers and others within the SFA community. Multiple media may include hard copy, soft copy (diskette, CD-ROM, etc.), Intranet, shared drives on a network, etc. to increase its accessibility.

#### **4. PHASES**

It is recommended that a phased approach be used for deploying the SDLC Process, in order to gain user acceptance. The following are suggested tasks and activities within each phase.

##### **4.1 Phase I - Increasing Awareness**

Socialization begins at the executive level and should filter down to the larger SFA community. A Road Show has been developed to assist the Chief Information Office Ecommerce Application Development (CIO ECAD) team - the SDLC sponsors - in socializing the guide at executive meetings. The executive presentation (Road Show) is intended to be informative and to generate interest. An initial unveiling ceremony may be organized during this first phase soon after the completion of the SDLC Process Guide. This type of introduction to the guide could assist with achieving multiple goals:

- Assemble a large audience to which information can be communicated;
- Demonstrate executive support towards the SDLC Process;
- Promote learning about the SDLC Process; and
- Provide name recognition and familiarity with the SDLC Process.

During this introduction, it may also help participants and guests if a handy quick reference pocket guide was available to assist them in learning about the SDLC Process.

Socializing the SDLC Process clearly involves more than just the team that sponsored it; it involves all members of its intended audience. One of the ways to enable acceptance of the SDLC Process is to also enlist personnel who were not involved in its development to assist with its promotion. This is generally referred to as 'coaching'. SFA has used coaches successfully in the past and this initiative could also benefit from utilizing this approach.

Upon introducing the SDLC Process, the SDLC Process Guide should be made available to all potential users. All potential users should be approached for feedback since this is the first iteration of the Guide. All feedback should be centrally coordinated to facilitate appropriate periodic updates. Allowing potential users with the opportunity to review the SDLC Process and



provide comments will not only facilitate ‘buy-in’ through participation, but also improve the overall quality of the process. Appropriate feedback options should be offered based on the media being used for disseminating the Guide.

The second activity involved in Phase I of the Deployment Plan is marketing. Just as with any product, marketing is important because it provides visibility and stimulates interest. Working in conjunction with SFA’s Communications Department, the intent should be to launch a comprehensive marketing campaign. For example, marketing should include advertising the introduction of the Process (unveiling ceremony). Other activities may include:

- SDLC Process posters in common use areas;
- SDLC Process flyers in individual mailboxes;
- Global e-mail notifications about the guide;
- Distribution of hard copies to IPT and Program/Project Managers;
- Availability of an electronic version of the SDLC Process Guide (Intranet or CD-ROM); and
- SDLC Process Reference Cards (pocket guides).

Another component during this phase is the communication of training availability. At a minimum, a tentative schedule of training events associated with the SDLC Process should be available along with an abstract for users. Multiple options may be provided such as brown bag sessions (during lunch) and formal training session during other working hours.

## **4.2 Phase II - Training**

The objective of the second phase of this deployment is on delivering the training required. This stage is where the interest generated during the first phase can lead to learning and implementing the SDLC Process. The information provided during these training sessions should be informative, relevant and presented with reference to current projects. Follow-up sessions for questions and answers or refresher sessions should be solicited and offered if necessary.

During the SDLC training sessions it should be expected that some users will understand and adopt the SDLC Process more easily than others. Utilizing coaching techniques may benefit the continued adoption of the processes. Coaches serve as advocates and facilitators and are key to promotion of new standards such as those identified in the SDLC Process Guide. As mentioned earlier, coaching has been successfully utilized at the SFA and deployment of the SDLC Process lends itself well to leveraging the technique. Coaching can also help provide hands-on experience while becoming an important source of assistance.



Finally, as part of this phase, feedback from students in the form of a survey should be gathered after each session in order to identify strengths and weaknesses of the training as well as the SDLC Process so that changes can be incorporated into subsequent versions.

#### **4.3 Phase III - Continuous Process Improvement**

Ownership of the SDLC Process is critical to its evolution, longevity and use. It is for this purpose that an SEPG (or equivalent) be created to manage the SDLC Process. This group would be responsible for collecting feedback, approving changes, determining who will maintain the Process Guide, performing version control activities and publishing new versions of the Guide. This group should meet on a regular basis and evaluate the process standards for relevance and use. This group may also develop and implement multiple feedback mechanisms to generate metrics associated with the usefulness of the guide and deployment activities and determine action required. Finally, it would be the responsibility of this group to assist the SEPG in implementing a continuous process improvement program with the goal of maturing the processes to higher levels of the Software Engineering Institute (SEI) Capability Maturity Model (CMM).

### **5. CRITICAL SUCCESS FACTORS**

Critical success factors are the conditions that can foster successful adoption of the SDLC Process. The following are some of the critical success factors:

Phase I (Awareness):

- Consistent presentation of message and theme;
- Follow-up on attendance for presentation to maximize attendance;
- Provide mechanisms for capturing feedback on the presentation, for incorporation in subsequent presentations;
- Schedule presentations away from other activities that distract from the message; and
- Provide overview briefing to executives to obtain buy in first, before briefing their respective departments.

Phase II (Training):

- Develop a schedule of training focusing on both current and future needs of users;
- Provide overview sessions for the potential audience to allow them to understand that the SDLC Process exists and how it can be used;
- Provide an assistance line, Help Desk support or coaches that can answer questions with respect to the integrated process; and
- Provide mechanisms for capturing feedback on the training and presentations, for evaluation and potential update of subsequent versions of the guide as well as training.



Phase III (Continuous Process Improvement):

- Determine the appropriate control mechanisms for the document and the content proposed for inclusion;
- Change management on the current version and subsequent versions;
- Provide mechanisms for capturing feedback, and provide drafts for incorporation in subsequent versions of the guide and training; and
- Development and inclusion of SFA examples (Templates and Project information).



## 6. SCHEDULE

The following timeline indicates the start time of each task within each phase of the deployment.

### SDLC DEPLOYMENT SCHEDULE

TASK	Start Month	Start Month +1	+2	+3	+4	+5	+6	+7	+8	+9	+10	+11
<b>Phase I</b>												
Post SDLC Process Guide on Intranet	X											
Present Road Show	X											
Identify Coaches		X										
Organize Unveiling Ceremony	X											
Create posters/flyers/pocket guide	X											
Write articles for newsletter		X										
Hold brown bag luncheons		X										
Conduct unveiling ceremony		X										
Distribute hard copies		X										
Create CDs		X										
Schedule training		X										
<b>Phase II</b>												
Design and develop course content	X	X										
Identify students to be coaches			X	X								
Conduct training per schedule			X	X								
Request feedback surveys			X				X				X	
<b>Phase III</b>												
Appoint SDLC Process Management Group	X											
Develop version control plan		X										
Develop feedback methods		X										
Generate metrics from results				X				X				X
Incorporate changes			X				X					
Publish next version of SDLC.				X				X				





## 7. RESOURCES

The following table outlines the resources necessary for each major task within each phase.

Task	Resources
<b>Phase I</b>	
Socialize	<ul style="list-style-type: none"><li>▪ Deputy CIO for eCAD to present Road Show</li><li>▪ Analysts who know development life cycles but were not involved directly with the SDLC Process development as Coaches</li><li>▪ ECAD Technical staff and IT Services – to place SDLC Process Guide on Intranet</li></ul>
Market	<ul style="list-style-type: none"><li>▪ SFA Communications Organization - for availability and cost to support marketing activities</li><li>▪ Mod Partner will provide master CD for SFA duplication</li></ul>
<b>Phase II</b>	
Identify Training Requirements	SFA Representative(s)
Design and develop course content	Modernization Partner
Schedule Training	SFA Representative(s)
Deliver Training	Modernization Partner and SFA Representative(s)
<b>Phase III</b>	
Establish SDLC Process Management Group	<ul style="list-style-type: none"><li>▪ Deputy CIO ECAD</li><li>▪ ECAD staff</li><li>▪ Modernization Partner</li></ul>
Version Control Plan	<ul style="list-style-type: none"><li>▪ SDLC Process Management Group - Appoint a committee to identify and incorporate SDLC changes</li><li>▪ SEPG</li><li>▪ ECAD QA team</li><li>▪ Modernization Partner</li></ul>
Feedback Mechanism	<ul style="list-style-type: none"><li>▪ SDLC Process Management Group</li><li>▪ SFA Representative(s)</li><li>▪ SEPG Representative(s)</li><li>▪ Modernization Partner</li></ul>